

SCOPUS

THE BORAN CISTICOLA *CISTICOLA BODESSA* IN KENYA, AND ITS POSSIBLE AFFINITIES

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The status of the Boran Cisticola *Cisticola bodessa* as a good species has been demonstrated by Ash (1974) and Erard (1974), thus confirming the observations on the distinctive voice of this form made by C.W. Benson in Ethiopia as long ago as 1945 (Benson 1946: 199-203). The only published reference to *bodessa* in Kenya seems to be the text accompanying a gramophone record by the late Myles North (North & McChesney 1964). Here, North mentions that he found the Boran Cisticola at three places: on Marsabit Mountain, and on the Timau-Isiolo and Kapenguria-Kacheliba road escarpments. It is not clear if specimens were collected (North merely says the birds were 'located'), but the song of a Marsabit bird appears on the record. Dr C. Chappuis (in Erard 1974) considers this to be identical to the song of Ethiopian *bodessa*, and a sonogram of it appears in Erard's Figure 1.

Erard (*op. cit.*) refers to North & McChesney (1964) having collected and recorded Boran Cisticolas at Marsabit and Nanyuki. This latter locality is, of course, south of the area between Timau and Isiolo, and Erard makes no mention of observations between Kapenguria and Kacheliba. Possibly there are indeed specimens from these areas, as Hall & Moreau (1970: Map 197) show three localities in Kenya, although they appear to have displaced the Timau-Isiolo record to the west. To determine what further observations there might be of *bodessa* in Kenya, we placed a request for information in the *Newsletter* of the Department of Ornithology, National Museums of Kenya (January 1977). D.A. Turner (*in litt.*) tells us that the species occurs at Moyale, but we have received no other records. G.R. Cunningham-van Someren (*in litt.*) reports that there are no specimens in the National Museum of Kenya at Nairobi.

During a visit to Kenya we sought *bodessa* in the area from Timau northwards to Isiolo. On 6 and 8 December 1976 we found it common in the escarpment around the turnoff to Meru National Park, i.e. at about 0° 03'N. 37° 27'E. This appeared to be the only suitable habitat along this road, and is probably where North found *bodessa*. This cisticola was extremely noisy, and F.D.-L. recognized the song immediately, as it is imitated by more than 90 per cent. of territorial Marsh Warblers *Acrocephalus palustris* in her study area in eastern Belgium (Dowsett-Lemaire in prep.). The Rattling Cisticola *C. chiniana* was also in song here, but appeared to be less numerous. Its song was similar to that we know well in Zambia. The habitat was rocky, sparsely grassed hillsides, with thorn scrub, and the altitude was about 2100 m. Both species were singing at the same time, and F.D.-L. was able to tape record both, using an Uher 4000 recorder.

A playback of the song of *bodessa* to a singing *chiniana* produced no response, but playback of *bodessa*'s own song produced a positive reaction. We found the brown cap and less streaked back of *bodessa* (mentioned by Erard 1974: 31) to be good field distinctions from *chiniana*, and thought it also had a heavier flight (although Erard's data suggest no difference in weight). Ash (1974 and *in litt.*) and Erard (1974) also found these two species alongside each other at some places in Ethiopia, although Erard suggests there may usually be altitudinal and ecological segregation, an aspect that would repay further study in Kenya.

The sonograms in Fig.1 illustrate the songs of *bodessa*, *chiniana* and the Ashy Cisticola *C. cinereola*. A and B show two typical song types of *chiniana*: 2 or 3 introductory notes, followed by a harsh rattle. The songs of *bodessa* and *cinereola* (C and D respectively) have a quite different pattern, both consisting of a fast succession of similarly shaped notes in a descending pitch. The wide frequency variation of each note is sharper in *bodessa*, which results in the song being more explosive, less melodious and musical than that of *cinereola*. In addition, *cinereola* sometimes produces a phrase in an ascending pitch, symmetrical to the one shown, but apparently not *bodessa*.

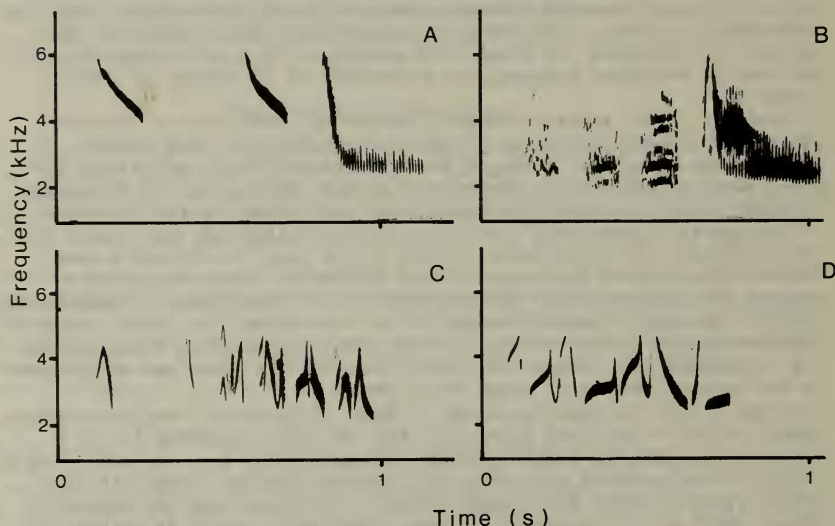


Fig.1 Songs of some related Cisticola warblers in Kenya. A & B: *chiniana*, two song types of the same individual (Timau-Isiolo area). C: *bodessa* (Timau-Isiolo area). D: *cinereola* (Voi, from North & McChesney 1964)

Chappuis (1974: 472) has already pointed out that the construction of the song of *bodessa* is similar to that of the Whistling Cisticola *C. lateralis* and the Red-pate Cisticola *C. ruficeps*, as well as to *cinereola*. In relating *cinereola* to *ruficeps* (Chappuis 1974: 481-2) he points out that, although their songs do show the same type of ascending and descending phrases, in *cinereola* the notes are somewhat deeper and the rhythm slower. In fact, sonograms (not illustrated) show that *ruficeps* sings 1000 Hz higher than *cinereola*, although the shape of the individual notes shows a closer approach to *cinereola* than do those of *bodessa*. We assume that the similarities in song between such morphologically and ecologically distinctive species have no important taxonomic significance: possibly they are the result of convergence.

Accepting this, we can establish the relationships of *bodessa* in one of two possible ways. It may be that *bodessa* and *chiniana* are indeed sibling species (as other authors appear to have assumed), at an early stage of speciation, and that the differences in song act to prevent interbreeding (which morphological similarities suggest might otherwise be possible). A well known parallel case involves the Marsh Warbler and the Reed Warbler *Acrocephalus scirpaceus* (Lemaire 1977), and there are perhaps others in this morphologically rather uniform genus. It is possible that the situation between the Short-tailed and Long-tailed Neddicky Cisticolas (*C. fulvicapilla* and *C. angusticauda*) in Zambia, described by Irwin & Benson (1967), is not strictly comparable. These two forms are rather similar to look at, though have somewhat different voices: but it seems likely that wherever they come into contact there is a hybrid zone, and normally they do not seem to differ in ecology. Perhaps, in the state of our present knowledge, *fulvicapilla* and *angusticauda* are best considered conspecific. They do show, however, that vocal differences may not always preserve specific integrity, and further field investigation is necessary to determine if hybridization can occur between *bodessa* and *chiniana*.

On the other hand, these two species may be less closely related to each other than either is to some other species, for example *cinereola*. Although *bodessa* looks less like *cinereola* than like *chiniana* (*cinereola* being much greyer and more streaked), they do appear to be ecologically segregated and might be considered semi-species. Both Lynes (1930) and Hall & Moreau (1970) have stressed the morphological similarities between *cinereola* and *chiniana* (including *bodessa*), although the latter do place them in separate superspecies (Maps 196-7). In Fig. 2 we map the known distribution of *cinereola* and *bodessa*, from which it is clear they are basically allopatric. *C. bodessa* is likely to occur at higher altitudes than *cinereola*, even in areas where they are geographically sympatric. In our map we have utilized 30' squares for convenience. Our major sources for localities have been Ash (1974 and *in litt.*), Erard (1974), Jackson (1938), Lynes (1930) and our own observations. Erard (*loc. cit.*) could not trace the locality Muji, north of Lake Turkana, whence there is a specimen of *bodessa*, but this is surely Maji at 6° 12' N., 35° 32' E. We cannot claim to have included all records of *cinereola*, but the map does give a good indication of the relative distribution of the two species. We consider that field investigation is now required into the actual or potential sympatry of *bodessa* and *cinereola*, with the use of tape play-back experiments to determine which mechanisms isolate the two.

On balance, we consider it likely that *bodessa* and *chiniana* are more closely related to each other than either is to a third species. But clearly not all questions regarding their relationships have been

answered, and we hope that ornithologists resident in Kenya can investigate further.



Fig.2 Sketch map of eastern Africa, showing distribution by 30' squares of: ● *Cisticola bodessa*; ○ *Cisticola cinereola*. The plots enclosed in dashed lines indicate squares from which both species are recorded

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SUBSTANTIAL WINTERING POPULATIONS OF THE BASRA REED WARBLER

ACROCEPHALUS GRISELDIS IN EASTERN KENYA

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The Basra Reed Warbler *Acrocephalus griseldis* breeds in marshes along the Euphrates and Tigris rivers in Iraq (Vaurie 1959) and winters in eastern Africa. Up to 1970, however, it was known south of the Sahara from a mere fifteen records, involving one to two individuals each, from Eritrea south to Malawi, and west to Uganda (Urban & Brown 1971, Pearson 1972, Backhurst, Britton & Mann 1973, Benson & Benson 1977). Ash (1978) has since recorded the species regularly from late August to early December in Ethiopia. Recent records have also provided evidence of significant wintering areas in the southern tropics. Thus, since 1971, the species has been encountered regularly on southward passage at Ngulia Safari Lodge, Kenya, where 250 grounded birds had been ringed up to 1977 on dates from 27 October to 13 January, many of them carrying substantial fat reserves (Pearson & Backhurst 1976, Backhurst & Pearson 1977). In southern Malawi, D.B. Hamner (1976 and *in litt.*) has recently netted the species regularly between mid November and early April, while nearby at Chire, Mozambique (16°42'S.) Ash (1978) has reported the recovery of an Ethiopian ringed individual; further south, at Mopeia (c.18°S.) Clancey (1975) reports on two specimens collected in December and January.

Apart from Ngulia records the sum total of published East African occurrences of the Basra Reed Warbler comprises those listed by Backhurst *et al.* (1973) and Pearson (1972), together with a further seven, all from south-eastern Kenya between 1971-76, listed by the EANHS Ornithological Sub-Committee (1977). To these can be added recent unpublished records from Bamburi, near Mombasa in November-December (4) and April (1), all ringed by H.A.B. and P.L.B., and another December 1976 Voi bird (P.C. Lack and D.J.P.). Thus, there were only 23 dated records away from Ngulia Lodge, involving 25 individuals, known to us to the end of 1977. Thirteen of these, dated November to early January, and another three in April, probably refer to passage birds. This leaves only seven East African records likely to involve wintering, all from Kenya (Naivasha, Mtito Andei and Kilifi) and eastern Tanzania (Tanga and Kilosa).

Early in 1978 we recorded Basra Reed Warblers from four localities in eastern Kenya, and discovered two wintering populations, one of which appeared to consist of hundreds of birds. An individual netted by H.A.B. in coastal scrub at Bamburi on 2 January may have been on passage, but another, caught at this site on 1 February, and completing wing moult, was almost certainly wintering. On 4 March we obtained good views of a